SNAPSHOT Newsletter

A Note from Jennifer

Dear WIPO Re:Search Members,

2013 has gotten off to a great start for BVGH and the Partnership Hub! We are settled into our new Seattle offices and are co-located with the Institute for Systems Biology, a Premier nonprofit research organization based in Seattle, Washington. Come and visit us soon!

WIPO Re:Search partnerships continue to be forged between member organizations to accelerate the development of new products for neglected tropical diseases. Collaborations are taking shape in the form of hosting arrangements and compound, library and expertise sharing by WIPO Re:Search Founding members: Alnylam, AstraZeneca, Eisai, GlaxoSmithKline, Merck, Novartis, Pfizer and Sanofi. If you have a request feel free to contact the Partnership Hub or respond to me directly.

We’re pleased to welcome the Eskitis Institute at Griffith University to WIPO Re:Search. Griffith University is our first Australian member!

Please share this Partnership Hub Snapshot with your colleagues and send us names and contact details of any colleagues who would like to be added to our distribution list.

We look forward to working with you to identify collaborations to advance the development of drugs, vaccines and diagnostics for neglected tropical diseases, malaria and tuberculosis.

Sincerely,
Jennifer

Upcoming Global Health Events

What important conferences are coming in the next two months?

Read more...

Cornerstones of Collaboration

The first anniversary of the London Declaration in support of NTD research and user-driven updates to the WIPO Re:Search database. Read more...

3rd Annual COHRED Colloquium

On 26-27 March this year, the Council on Health Research for Development (COHRED) is hosting their third COHRED Colloquium. This year’s meeting is going to focus on the importance of increasing the volume and efficiency of

Partnership Hub Central

Roopa and Jennifer have been busy connecting researchers from the University of Washington, CalTech, University of Lagos in Nigeria, and others. Read more...
investments in research and innovation in LMICs. Find out more.

Professor Ronald J. Quinn
Eskitis Institute Director

Research Request
Researchers at Stanford University are seeking collaborators in leishmaniasis. Read more.

Highlighted Contributions
University of Kansas has contributed a wide range of critical lead optimization and quantitative services into the WIPO Re:Search database. Read more.

We've moved!
BVGH is thrilled to announce that we are settled into our new headquarters! We are now co-located with the Institute for Systems Biology in Seattle, WA.

We want to hear from you! What do you think about the new look of our Snapshot newsletter? Click here!

New Member Announcements
"We are very pleased to be the first Australian research organisation to join WIPO Re:Search and are looking forward to bringing our unique natural product expertise to new collaborations with Re:Search members," said Professor Ronald J Quinn AM, Eskitis Institute Director.

Housed within Griffith University on Australia’s Gold Coast, the institute represents three unique, collaborative centres researching neurobiology, cell biology, infectious disease, natural products, and early stage drug discovery. The centres are led by Director, Dr. Ron Quinn, and hosts more than 188 researchers, students, visiting faculty, and administrative staff.

Cornerstones of Collaboration -- 2012 Partnering Highlights
BVGH and WIPO Re:Search have endorsed the London Declaration to end NTDs. Started in January 2012, the London Declaration "represents a new, coordinated push to accelerate progress toward eliminating or controlling 10 neglected tropical diseases (NTDs) by the end of the decade." Organizations from around the world, including BVGH and WIPO Re:Search have pledged to "work together to improve the lives of the 1.4 billion people worldwide affected by NTDs, most of whom are among the world’s poorest." The first anniversary of the London Declaration was January 30, 2013.

For more information, click here.

WIPO Re:Search has launched a survey to support efforts to update and improve the current online WIPO Re:Search database. All Members are encouraged to visit the web survey here to provide feedback on the current version of the database.
Partnership Hub Central

Fred Buckner (Associate Professor, Department of Medicine), University of Washington spoke with BVGH about his research to identify, select and validate compounds that target trypanosomes. BVGH is working to identify partners who can bring value to this program and help facilitate further development of these compounds.

Communication between faculty members at the California Institute of Technology (Caltech) with the ANDI Center of Excellence for Malaria Diagnosis at the University of Lagos, Nigeria was facilitated by BVGH. Interest in working together to develop a novel diagnostic for malaria as established. Caltech's antibody-stabilization technology will be leveraged in this potential collaboration.

Anacor and Pfizer Animal Health were connected to discuss how they might collaborate around onchocerciasis.

Progress has been made on an early WIPO Re:Search Agreement signed between AstraZeneca and UCSF. Cathepsin inhibitors provided by AstraZeneca were screened against enzyme targets and parasites at UCSF and some promising hits have been identified. Next steps in this collaboration are being determined by AstraZeneca, Jim McKerrow and Conor Caffrey from UCSF.

Researchers from the Infectious Disease Research Institute (IDRI) and the Medical Research Council of South Africa will explore collaboration opportunities around anti-TB compounds developed from natural products in South Africa.

GALVmed's Grant Napier visited the Trypanosomiasis Research Center at the Kenyan Agricultural Research Institute (KARI) to discuss and explore collaboration opportunities with Grace Murilla, Head of the Trypanosomiasis Research Center at KARI and colleagues. The members will remain in contact and plan to work together at the right stage of product development.

Highlighted Contributions

The University of Kansas (KU) Biotechnology Innovation and Optimization Center (BIO Center) supports lead optimization processes that are critical for selecting and advancing promising chemical compounds. The BIO Center is led by Dr. Michael Baltezor, a pharmaceutical industry veteran, and can characterize the physical and chemical properties of novel compounds. The center has expertise in formulating drug products for in vivo preclinical studies and conducts pharmacokinetic and pharmacodynamic studies in rodents, dogs and non-human primates. Capabilities also include the ability to conduct limited accelerated drug product stability studies.

The Macromolecule and Vaccine Stabilization Laboratory (MVSL) within the KU Department of Pharmaceutical Chemistry specializes in the stabilization of vaccines as well as protein and DNA based pharmaceuticals. This laboratory is directed by Professor Russ Middaugh, who led the Gardasil vaccine development program while at Merck. The laboratory includes a Biosafety Level-3 (BSL-3) facility and Mass Spectrometry laboratory with MALDI-TOF and Q-TOF instrumentation.

These contributions were recently uploaded to the WIPO Re:Search database. If you are interested in collaborations around these contributions please email Roopa.
Research Request

Nir Qvit, a postdoctoral researcher at Stanford University is interested in accessing expertise in peptide formulations for an inhibitor of cutaneous leishmaniasis. The inhibitor has demonstrated efficacy in an animal model.

If you are interested in learning more about this research request, please email Roopa.

Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-18 MARCH</td>
<td>Keystone Symposium on Tuberculosis</td>
<td>Whistler, B.C.</td>
<td>[Link]</td>
</tr>
<tr>
<td>14-16 MARCH</td>
<td>4th Annual CUGH Conference on Global Health: Innovation, Implementation, Impact</td>
<td>Washington, DC</td>
<td>[Link]</td>
</tr>
<tr>
<td>24-27 MARCH</td>
<td>3rd Global Forum on TB Vaccines</td>
<td>Cape Town, South Africa</td>
<td>[Link]</td>
</tr>
<tr>
<td>26-27 MARCH</td>
<td>COHRED Colloquium 2013</td>
<td>Geneva, Switzerland</td>
<td>[Link]</td>
</tr>
</tbody>
</table>

Are you attending a global health event? Do you have a Research Request to highlight in the Snapshot? We want to hear from you! Please send feedback and suggestions via email.
SNAPSHOT Newsletter

A Note from Jennifer

Dear WIPO Re:Search Members,

February was a busy month with meetings in Washington DC, London, Geneva and India! We met with many members and are encouraged by the enthusiasm and support we feel where ever we go.

I want to take a moment to thank the Founding Members of WIPO Re:Search - Alnylam, AstraZeneca, Eisai, GlaxoSmithKline, Merck, Novartis, Pfizer and Sanofi - for their commitment and willingness to share valuable resources and knowledge to advance the development of products for neglected diseases.

If you would like to access resources or establish partnerships to advance your neglected disease research and development programs contact Roopa Ramamoorthi or me for more information. We look forward to working with you to identify collaborations to advance the development of drugs, vaccines and diagnostics for neglected tropical diseases, malaria and tuberculosis.

I'm pleased to welcome McMaster University and the International Organization of Intellectual Property Professionals to WIPO Re:Search. A special thank you to our colleagues at Novartis for encouraging McMaster to join!

Please share this newsletter with anyone who would benefit from joining WIPO Re:Search.

Sincerely,
Cornerstones of Collaboration
Jennifer travels to Geneva, Switzerland for meetings. Read more...

Partnership Hub Central
Roopa and Jennifer have been busy meeting with researchers NIH, NCATS, WRAIR and others. Read more...

Research Request
BVGH is soliciting Research Requests from WIPO Re:Search Members. Read more...

Highlighted Contributions
This month, we're highlighting two contributions from the newest WIPO Re:Search Member. Read more...

New Member Announcements
This month, we are pleased to announce two new WIPO Re:Search Members: McMaster University and the International Federation of Intellectual Property Attorneys (FICPI).

Founded in 1887, McMaster University is a world-class academic institution based in Ontario, Canada. The university employs more than 1,300 full-time faculty and is the recipient of $325 million of sponsored research funding. The Michael deGroote Institute for Infectious Disease Research is internationally renowned for the interdisciplinary work against microorganisms. McMaster University will be joining as a Provider and User member. "McMaster is pleased to become a member of this international consortium. We are entering into our first agreement, with Novartis, and look forward to exploring many more to advance our research in neglected diseases," said Dr Elsie Quaile-Randall, Executive Director, of McMaster's Industry Liaison Office.

The International Federation of Intellectual Property Attorneys (FICPI) is an global organization of intellectual property professionals in private practice with representatives from 86 countries around the world. FICPI is joining as a Supporter member. "FICPI is delighted to lend its support to WIPO: Research which aims to leverage the power of intellectual property to improve lives in the world's poorest nations," said Julian Crump, Secretary General of FICPI.
WIPO Re:Search in the News

In the most recent issue of WIPO Magazine, an article by Catherine Jewell, WIPO Senior Information Office, highlighted the WIPO Re:Search consortium members and the Partnership Hub. The article includes feedback from AstraZeneca, Emory University, Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR) on their ongoing collaborations established through the consortium.

Read the full-length article here.

Cornerstones of Collaboration -- 2012 Partnering Highlights

Jennifer met with WIPO colleagues in Geneva to further develop the WIPO Re:Search strategic plan and meet leaders from other WIPO divisions. Tom Bom belles and Jennifer met with WIPO colleagues from the Department of External Relations, the Global Infrastructure Sector and Access to Information and Knowledge Division, the Technology Sector, Innovation Division and Communications to explore leveraging these groups to support WIPO Re:Search objectives. Keep an eye on the WIPO Re:Search website to learn about WIPO programs that could compliment your training and development needs.

While in Geneva Jennifer met with Eduardo Pisani, President of the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) to discuss BVGH and WIPO Re:Search. Eduardo confirmed the IFPMA’s commitment and support of WIPO Re:Search and encouraged us to continue the important work of the consortium.

Jennifer also met with leaders at the World Health Organization to share some of the accomplishments and collaborations established to date by members of WIPO Re:Search. Feedback from our technical advisor was positive and encouraging.
Jennifer meets with Konji Sebati, Director, WIPO Department of Traditional Knowledge and Global Challenges (far left), Tom Bombelles, Consultant (left), and Christian Wichard, WIPO Deputy Director (right) at WIPO Headquarters in Geneva, Switzerland

Partner

Jennifer and Roopa visited the National Center for Advancing Translational Sciences (NCATS) and the National Institute for Allergy and Infectious Disease (NIAID) to meet with intramural researchers, extramural program officers and organization leaders. BVGH had the opportunity to learn more about National Institutes of Health (NIH) programs and resources that can be leveraged by WIPO Re:Search Members. These resources included courses offered, hosting opportunities for developing world researchers, in-kind resources as well as specific areas of expertise. Cliff Barry explained and showed off his impressive tuberculosis facility including the world class BSL3 robotics platform and animal models.

Jennifer and Roopa also had the opportunity to reconnect with the leaders of the Walter Reed Army Institute of Research (WRAIR) bioproduction facility and facilitated an introduction for their assay group with the NIH program officer in Acute Viral Diseases to obtain additional diverse dengue samples from around the world.

The South African Medical Research Council (MRC) and the Infectious Disease Research Institute (IDRI) have signed a CDA that will enable IDRI to provide structure-activity relationship (SAR) support for natural product derived anti-tuberculosis compounds developed by the MRC and its consortium partners.

Highlighted Contributions

Eskitis University at Griffith University in Australia, the newest member of WIPO Re:Search has already made significant contributions to the WIPO Re:Search Database. These are profiled below.

Nature Bank is a unique biodiversity resource made available by Eskitis Institute to WIPO Re:Search Members. Based on natural products from Australia, China and Papua New Guinea, the natural products library comprises over 45,000 samples of plants and marine invertebrates, over 200,000 semi-purified fractions, over 3,250 pure compounds and over 400 naturally-occurring fragments. Nature Bank is enhanced for drug-like characteristics in accordance with Lipinski’s rules. The collection is stored under nitrogen and can be reformatted on demand into 96-, 384- and 1536-well microplates. This resource can be used for phenotypic or target based screening against various parasites. The institute can also undertake screening in house with assays provided by collaborators.


These contributions were recently uploaded to the WIPO Re:Search database. If you are interested in collaborations around these contributions please email Roopa.
SPECIAL FEATURE
Roopa's Visit to India
This month, BVGH’s tireless Associate Director of Partnering and Scientific Affairs, Roopa Ramamoorthi, is traveling across India.

Beginning in Lucknow, Roopa’s journey will take her through New Delhi, Pune, and Bangalore (see map at right). During her trip, Roopa will attend the 5th International Symposium of Drug Development for Orphan/Neglected Disease, the Vaccine World Summit, visit the International Centre for Genetic Engineering and Biotechnology (ICGEB), meet with many potential WIPO Re:Search members, and identify new, exciting opportunities to expand the global consortium.

Follow Roopa’s journey real-time via our Twitter feed.

During the CTDDR meeting, Roopa had the opportunity to speak with representatives from DNDi, London School of Tropical Medicine and Hygiene, and Medicines for Malaria Venture (MMV). These conversations focused on existing WIPO Re:Search collaborations and opened the door for new partnerships between consortium members.

We will include details from Roopa’s meetings in a special Snapshot feature next month.

Research Request
WIPO Re:Search Members - have you hit a barrier in your NTD research? Are you looking for a partner to help fill R&D gaps? Why not ask the WIPO Re:Search community?

We will post Member Research Request in this section in future issues of the Snapshot newsletter. Please email your request with a brief description to Roopa.
<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-14   April</td>
<td>Global Health and Innovation Conference</td>
<td>Yale University New Haven, CT</td>
<td>Website</td>
</tr>
<tr>
<td>16-18   April</td>
<td>World Vaccine Congress</td>
<td>Washington, DC</td>
<td>Website</td>
</tr>
<tr>
<td>21-25   April</td>
<td>Kinetoplastid Molecular Cell Biology Meeting</td>
<td>MBL Woods Hole, MA</td>
<td>Website</td>
</tr>
<tr>
<td>22-25   April</td>
<td>BIO International Convention (BVGH will be attending and participating)</td>
<td>Chicago, IL</td>
<td>Website</td>
</tr>
<tr>
<td>25-28   April</td>
<td>Society for the Advancement of Science in Africa (SASA): Pushing the Frontiers of Science in Africa</td>
<td>Polokwane, South Africa</td>
<td>Website</td>
</tr>
</tbody>
</table>

*Are you attending a global health event?*
*Do you have a Research Request to highlight in the Snapshot?*

*We want to hear from you! Please send feedback and suggestions via email.*

Copyright © 2012. All Rights Reserved.
A Note from Jennifer

Roopa has returned from India after a productive trip to increase awareness of WIPO Re:Search with the goal of recruiting new members to the Consortium. Highlights of Roopa's trip are captured in this month's Snapshot.

I had the pleasure of hosting guests from Kumasi, Ghana in Seattle this past week. Ellis Owu-usu-Dabo, Scientific Director, Kumasi Centre of Collaborative Research in Tropical Medicine (KCCR) and Ingrid Sobel, Head of Administration, KCCR visited Seattle for the first time to meet with PATH. You will hear about their visit in next month's edition.

Sanofi Pasteur, a division of Sanofi, will become actively involved in WIPO Re:Search following meetings held in Lyon, France. I'm pleased to welcome our newest member of WIPO Re:Search, Aberystwyth University, UK and specifically Karl Hoffmann, Professor in Parasitology and Editor of Parasitology International.

Please share this Snapshot with your colleagues and friends. Your comments, suggestions and ideas are always welcome.

Sincerely,
Jennifer Dent
President, BVGH

Roopa's Visit to India

Last month, BVGH's tireless Associate Director of Partnering and Scientific Affairs, Roopa Ramamoorthy, traveled across India. Read more about Roopa's trip...

Cornerstones of Collaboration

Seattle plays host to visitors from Ghana's Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR). Read more...
Partnership Hub
Central
Jennifer travels to Switzerland; Members discuss cutting-edge technology from MIT. Read more...

Research Request
Researchers at the Kenyan Agricultural Research Institute (KARI) have created a unique method for scientists to study trypanosomiasis in mouse models. Read more...

Highlighted Contributions
The NIH is seeking interest parties to collaborate on the development of a unique vaccine for trachoma. Read more...

New Member Announcements
We are pleased that Sanofi Pasteur, the vaccines division of Sanofi, will become a member of the WIPO Re:Search Consortium. Sanofi Pasteur is a global company that provides more than one billion doses of vaccine each year, making it possible to immunize more than 500 million people across the globe. They offer a broad range of vaccines against 20 infectious diseases and are actively researching and developing new vaccines.

Aberystwyth University located in Aberystwyth, Wales (UK) was established in 1872 -- the first Welsh university -- and has built a strong academic reputation. The Institute of Biological, Environmental and Rural Sciences (IBERS) houses the Parasitology & Epidemiology Group which consists of investigators studying molecular and biochemical parasitology, vector borne disease, and the evolutionary implications of host-parasite interactions. Please join us in welcoming our newest WIPO Re:Search Member!

Cornerstones of Collaboration
Jennifer hosted guests from the Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR) in Ghana. Ellis Owusu-Dabo, Scientific Director and Ingrid Sobel, Head of Administration at KCCR visited Seattle for the first time. More details on their meetings and visit will be included in the next Snapshot issue.
**Partnership Hub Central**

Researchers at Emory and MIT were introduced and had a productive discussion focused around technology developed by Sangeeta Bhatia (MIT). The two groups plan to follow-up to discuss collaborations in several areas of mutual interest.

Jennifer participated in the 2013 COHRED Colloquium on March 26-27 in Geneva. The colloquium focused on the monitoring and evaluation of investments in global health research. While in Switzerland, Jennifer met with Solomon Nwaka, Acting Director, African Network of Drugs and Diagnostics Innovation (ANDI) together with Konji Sebati, Senior Director, World Intellectual Property Organization (WIPO). Solomon was impressed with the achievements of WIPO Re:Search to date and expressed interest in the capacity building arrangements where researchers from African Institutions will be hosted at Academic and Industry organizations in 2013. The WIPO Re:Search Annual Meeting was discussed along with plans to host that meeting alongside ANDI’s annual meeting in October 2013.

Following the COHRED Colloquium, Jennifer and Tom Bombelles (WIPO) traveled to Lyon, France with Martin Bernhardt and Amandine Roux from Sanofi. Martin and Amandine organized a meeting with Sanofi and Sanofi Pasteur colleagues to increase awareness of WIPO Re:Search and how the Partnership Hub facilitates collaborations. Discussions were helpful for both sides to better understand partnering interests and opportunities. Sanofi Pasteur participants expressed their interest in engaging in WIPO Re:Search and exploring partnership opportunities through the consortium.

---

**Highlighted Contributions**

The U.S. National Institute of Health (NIH) has contributed a vaccine composition that contains an immunologically effective amount of PmPD protein from *Chlamydia trachomatis*, the causative agent of trachoma. PmpD is an antigenically stable pan-neutralizing target that, in theory, would provide protection against all human chlamydial strains, thus allowing the development of a univalent vaccine that is efficacious against both blinding trachoma and sexually transmitted disease.

The NIH’s National Institute for Allergy and Infectious Diseases (NIAID) Laboratory of Intracellular Parasites is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, and commercialize the PmpD vaccine. If you are interested in learning more contact Roopa Ramamoorthi.

Click [here](#) to view the WIPO Re:Search database entry for this contribution.

**References:**

---

**Research Request**

Grace Murilla, Center Director and colleagues at the Kenyan Agricultural Research Institute (KARI), Trypanosomiasis Research Center have created a unique device called the Infectra(TM)-kit.

This device allows researchers to restrain mice and subsequently expose them to contained tsetse flies. The Infectra(TM)-kit allows for the simultaneous exposure of up to eight mice.

If you are interested in collaborations around using this device for studies involving vertebrate-invertebrate interactions contact Roopa Ramamoorthi.

**Reference:**
Ndung’u K. et. al. (2013) Infectra(TM)-kit: A device for restraining mice and confining tsetse flies during trypanosome...
SPECIAL FEATURE
Roopa's Visit to India

Roopa Ramamoorthi, Associate Director of Partnering and Scientific Affairs, embarked on a month-long journey across India to meet with and recruit Indian organizations to WIPO Re:Search. She attended two scientific meetings, met with many researchers and organizations working in global health and neglected tropical diseases. Here are a few highlights from her journey.

During the "CTDDR-2013: Drug Development for Orphan/Neglected Diseases" meeting in Lucknow, Roopa had the opportunity to speak with representatives from Drugs for Neglected Diseases initiative (DNDi), the London School of Tropical Medicine and Hygiene, and Medicines for Malaria Venture (MMV). Conversations focused on existing WIPO Re:Search collaborations and opened the door for new partnerships between consortia members. Roopa reached out to Samir Brahmacchari, Director General of the Council for Scientific and Industrial Research and Tushar Chakraborty, Director of the Central Drug Research Institute to inform them about WIPO Re:Search and encourage their participation in the consortium. She had a productive conversation with Seyed Hasnian, Professor from Indian Institute of Technology (IIT), Delhi and is following up to recruit IIT Delhi to WIPO Re:Search.

After the CTDDR conference, Roopa visited the International Center for Genetic Engineering and Biotechnology (ICGEB) in Delhi. She met with Virander Chauhan, Director ICGEB and many faculty members to learn about their research and recruit ICGEB to WIPO Re:Search. She also discussed collaboration possibilities with Anmol Chandele, faculty member at the Emory-ICGEB center, presented WIPO Re:Search and met with Emory-ICGEB postdoctoral researchers.

In Delhi, Roopa met with Chandrima Shaha, Director of the National Institute of Immunology to present and discuss the process of joining WIPO Re:Search. The National Institute of Immunology (NII) is an institution supported by the Department of Biotechnology, Government of India, committed to advanced research addressing the basic mechanisms involved in body's defense, host-pathogen interactions and related areas.

At the IMAPAC Vaccine World Summit in Pune, Roopa spoke with Davinder Gill, CEO of Hilleman Laboratories about their collaboration interests. Hilleman Laboratories is a joint venture between Merck and the Wellcome Trust. The vaccines conference also provided an opportunity to meet with leaders from Indian vaccine manufacturers including Serum Institute, Indian Immunologicals and Bharat Biotech.

Roopa's meeting with Shrishendu Mukherjee, Senior Strategic Adviser at the Wellcome Trust was very informative and she learned more about the India Initiative on R&D for Affordable Healthcare.

After traveling from Pune to Bangalore, Roopa had productive conversations with Shridhar Narayanan, Vice President and Head Infection iSciences at AstraZeneca, Bangalore and Sunita DeSousa, Associate Director, External Collaborations. Finally near the end of her journey, Roopa spoke with Dhananjay Dendukuri, CEO of Achira labs and had the opportunity to see their microfluidics diagnostics platform. All told, it was a very successful trip to India.

Photo Gallery
Enjoy a few photos from Roopa's journey through India!
(see captions below photos for details)
Roopa at the ancient fortress, Sinhagad, near Pune.

Welcome poster at the CTDDR meeting in Lucknow.
Roopa and Anmol Chandele, an Emory University faculty member at the Emory-ICGEB facility (Dehli).

Roopa and Davinder Gill from the Merck Hilleman Labs (Dehli).
Archway at the Qutub complex in Delhi.

Research staff at the Emory-ICGEB labs.
Roopa with Shridhar Nayayanan and Sunita DeSousa at AstraZeneca's Bangalore facility.

The Bara Imambara mosque in Lucknow.

Coconut vendor in Mumbai.
### Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 May</td>
<td>Keystone Symposium: The Innate Immune Response in the Pathogenesis of Infectious Disease</td>
<td>Ouro Preto, Brazil</td>
<td>Website</td>
</tr>
<tr>
<td>13 May</td>
<td>5th World Congress on Leishmania</td>
<td>Ouro Preto, Brazil</td>
<td>Website</td>
</tr>
<tr>
<td>15-17 May</td>
<td>GBCHealth Annual Conference</td>
<td>New York, NY</td>
<td>Website</td>
</tr>
</tbody>
</table>

Are you attending a global health event?
Do you have a Research Request to highlight in the Snapshot?

We want to hear from you! Please send feedback and suggestions via email.
A Note from Jennifer

Dear WIPO Re:Search Members,

Summer is upon us in Seattle which was great last week as the Gates Foundation hosted their annual Product Development Forum in the city. I had the opportunity to meet with a number of WIPO Re:Search members who attended the Forum including; David Reddy and colleagues at MMV, Zafar Mirza from the World Health Organization, Claire Wingfield from PATH, Benedict Blayney from Sanofi and several others.

We are pleased to highlight Ellis Owusu-Dabo and Ingrid Sobel's visit to Seattle from the Kumasi Centre of Collaborative Research in Tropical Medicine (KCCR) in this edition. Thank you to all of our Seattle WIPO Re:Search members who welcomed and met with Ellis and Ingrid to learn about KCCR's research and partnership interests.

BVGH is proud to have nominated two WIPO Re:Search members for the prestigious Sanofi - Institut Pasteur Awards. Four Awards will go to mid-career and senior scientists whose outstanding research in the life sciences contributes to global public health.

Please join me in welcoming Liz Bromley, Associate Director, Partnering and Program Management to BVGH!

Feel free to share this newsletter with your colleagues and let us know how BVGH can identify new partners to advance your neglected disease programs.

Sincerely,
Jennifer Dent
President, BVGH

Member Spotlight
The Sanofi - Institut Pasteur Awards in 2013 will honor and support four scientists, whose outstanding research shows real progress in the life sciences and contributes to global public health. Each winner will receive an award for themselves and to support their future research. An international committee comprised of eight distinguished scientists will review all applications. The awards will be presented on November 5th, 2013 at a ceremony in Paris, France.

BVGH nominated two outstanding scientists from WIPO Re:Search Member organizations based in Africa. Good luck to all award nominees!

For more information, please click here.

**Please note: the deadline for nominations has been extended to 10 May 2013**

The BVGH Team is Growing!

Please join us in welcoming Liz Bromley to BIO Ventures for Global Health and to WIPO Re:Search.

As Associate Director, Partnering and Program Management at BVGH Liz will play a key role in identifying, presenting and facilitating collaborations within our WIPO Re:Search network. Liz brings a mix of expertise and experience in managing collaborations from big pharma and biotech to her role at BVGH.

After completing an AB in Biology at the College of the University of Chicago, she obtained her Masters from MIT and went on to Harvard where she received her PhD in Genetics. Welcome, Liz!

New Member Announcements

We are very pleased to welcome two Organizations based in India, to WIPO Re:Search this month.

The International Center for Genetic Engineering and Biotechnology (ICGEB) division based in New Delhi is actively engaged in developing new vaccine candidates against dengue and malaria as well as understanding immune response and developing innovative diagnostics against tuberculosis. Discussions to explore a Dengue collaboration between ICGEB and another Member organization have already been initiated.

National Institute of Immunology (NII), also based in New Delhi is focused on understanding host pathogen interactions and the basic mechanisms involved in immune response. We look forward to facilitating collaborations that leverage the strengths and partnering interests of the researchers at NII.

Cornerstones of Collaboration

Ellis Owusu-Dabo, Scientific Director at the Kumasi Centre of Collaborative Research in Tropical Medicine (KCCR) and his colleague Ingrid Sobel, Director of Administration at KCCR visited Seattle to meet with PATH to expand on a number of collaboration opportunities. BVGH facilitated introductions to and meetings with a number of other Seattle organizations--including WIPO Re:Search members Seattle BioMed, the Infectious Disease Research Institute (IDRI), Northeastern University--and the Gates Foundation.
Ellis and Ingrid presented KCCR’s interests and capabilities as well as Ellis’s research in tuberculosis and non-communicable diseases including diabetes in Ghana.

Follow-up is underway with Northeastern University’s Richard Wamai and Tayloe Washburn to explore common areas of interest.

**Partnership Hub Central**

After speaking with Nir Qvit from Stanford University at the 2012 ASTMH Annual Meeting, Roopa reached out to AstraZeneca to see if they could provide support for his project. A senior researcher at AstraZeneca’s MedImmune Division shared expertise and advice with the Stanford postdoctoral researcher who is formulating peptides for treatment of cutaneous leishmaniasis.

Roopa Ramamoorthi represented BVGH and WIPO Re:Search at the Bay Area Malaria Day Event. She introduced the
Consortium and presented eight WIPO Re:Search collaborations all with a focus on developing new products for malaria. During the one day event Roopa connected with a number of WIPO Re:Search members to discuss partnership opportunities.

Roopa presenting at the World Malaria Day 2013 -- Bay Area Symposium.

Jennifer Dent presented WIPO Re:Search, with a focus on partnering, on a panel chaired by Jerry Zeldis, Chief Medical Officer, Celgene Corporation and Chief Executive Officer, Celgene Global Health, at the 2013 BIO International Convention in Chicago. Partnerships established by pharmaceutical Founding members were highlighted to reinforce the important contributions available from private industry for neglected diseases global health collaborations.

Photo of BIO panel, left to right: Jerry Zeldis, CEO of Global Health, Celgene, Jennifer Dent, Sophia Michaelson, Special Advisor to NIH, Yves Ribeill, CEO of SCYNEXIS, Robert Einterz, Assoc Dean for Global Health; Professor of Clinical Medicine, Donald E. Brown Professorship in Global Health, Indiana University and Director, AMPATH.

WIPO Re:Search in the News

WIPO Re:Search was highlighted in a recent announcement by founding Member GlaxoSmithKline (GSK).

GSK announced that it will receive £5 million in funding from the Wellcome Trust to advance early-stage research
focused on neglected tropical diseases, TB, and malaria. These funds will enable GSK researchers to accelerate development of the most promising products.

See the complete press release [here](#).

**Highlighted Contributions**

Professor James (Jim) Heath’s group at [Caltech](#) has expertise in creating artificial antibodies that share the high affinity and selectivity of monoclonal antibodies, but maintain the stability of short peptides. They are developing chemistries for targeting these peptides at specific protein epitopes.

The superior stability of these capture agents has possible advantages in diagnostic applications for immunoassays, especially where the diagnostic tests would be exposed to high ambient temperatures.

For more information or to discuss potential collaborations around this technology, please contact [Roopa Ramamoorthi](#).

**References:**

WIPO Re:Search Database entry describing this contribution [Link](#)

Millward S.W. et al. (2011) Iterative in Situ Click Chemistry Assembles a Branched Capture Agent and Allosteric Inhibitor for Akt1. *Journal of the American Chemical Society* 133, 18280-18288. [Link to PubMed](#)

**Upcoming Global Health Events**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-19 June</td>
<td>Global Health Metrics and Evaluation Conference</td>
<td>Seattle, WA</td>
<td><a href="#">Website</a></td>
</tr>
<tr>
<td>17-20 June</td>
<td>World Vaccine Congress Asia</td>
<td>Singapore</td>
<td><a href="#">Website</a></td>
</tr>
<tr>
<td>26-29 June</td>
<td>Annual Meeting of the American Society of Parasitologists</td>
<td>Quebec City, Canada</td>
<td><a href="#">Website</a></td>
</tr>
</tbody>
</table>

Are you attending a global health event?  
Do you have a Research Request to highlight in the Snapshot?  
We want to hear from you! Please send feedback and suggestions via [email](mailto:).
A Note from Jennifer

Dear WIPO Re:Search Members,

I am proud to inform you that over 25 agreements have been established between WIPO Re:Search members to date! The Consortium continues to surpass our partnership objectives to the delight of WIPO, BVGH and our members. Thank you for your continued support and commitment to explore new partnership opportunities.

This month BVGH has enjoyed visiting our WIPO Re:Search members and neighbors in Seattle. We are featuring the Infectious Disease Research Institute (IDRI) and their impressive new facility along with meetings with leaders at Seattle BioMed and the University of Washington in this issue.

I'm pleased to welcome Katy Graef, our newest team member, to BVGH and WIPO Re:Search. Katy brings a wealth of infectious diseases knowledge to WIPO Re:Search having completed her post-doc at the National Institutes of Health, PhD in Virology at Oxford and attending the University of Washington as an undergraduate. Please join me in welcoming Katy if you have not already been in touch with her.

Your comments, ideas and suggestions are always welcome. Please share this WIPO Re:Search Partnership Hub Snapshot with your colleagues.

Sincerely,
Jennifer Dent
President, BVGH

Cornerstones of Collaboration

The World Intellectual Property Organization (WIPO) organized a WIPO Re:Search panel session in New York on April
24th as part of the preparatory process for The United Nations Economic and Social Council (ECOSOC) events. The theme for ECOSOC in 2013 is the role of science, technology and innovation for sustainable development. Konji Sebati, Director, Department of Traditional Knowledge and Global Challenges at WIPO chaired the session with WIPO Re:Search represented by Roy Waldron, SVP & Associate General Council, Pfizer, Neeraj Mistry, Managing Director at Global Network for Neglected Tropical Diseases, Sabin Vaccine Institute, and Solomon Nwaka, Head, African Network Diagnostic and Drug Innovation (ANDI), World Health Organization.

WIPO characterized WIPO Re:Search as an outstanding example of how partnerships can create new opportunities and facilitate research to achieve sustainable development goals.

BVGH brought the 13th International Advanced Course on Vaccinology, offered by WIPO Re:Search member, the International Vaccine Institute (IVI), to the attention of Drissa Coulibaly from the University of Bamako in Mali. Drissa was awarded a fellowship to attend the program at IVI’s facility in Seoul, South Korea. The IVI course aims to strengthen the capacity of countries in vaccinology by providing participants with a comprehensive overview of the vaccine continuum, from vaccine development, evaluation and regulatory principles, to production, post-licensure, introduction and policy issues.

"The course gave me the opportunity to meet experts involved in various aspects of vaccinology. The course was exciting, I learned a lot and will share the new knowledge with colleagues and others actors in vaccinology in my country", Drissa Coulibaly, Mali.

Roopa Ramamoorthi met with Jose Gomez Marquez and Anna Young from the Massachusetts Institute of Technology (MIT) Little Devices Group when they were visiting the Bay Area. They explained their approaches to tap into innovation and understanding of on-the-ground realities in medical and research settings in developing countries to develop products relevant for those countries. BVGH is exploring collaborations for this group around diagnostics applications.

Davinder Gill, CEO of the Merck Hilleman Labs, met with Navin Khanna, Group Leader Recombinant Gene Products Laboratory at the International Center for Genetic Engineering and Biotechnology (ICGEB) to discuss potential collaboration around dengue vaccine process development.

**Partnership Hub Central**

Roopa Ramamoorthi and Katy Graef from BVGH visited the Infectious Disease Research Institute (IDRI) in Seattle to follow-up on a few collaborations in the works and to explore some new partnership opportunities. IDRI established its first WIPO Re:Search collaboration with the South African Medical Research Council (MRC) in which IDRI is sharing expertise to help the South African MRC and the University of Cape Town develop natural product derived anti-tuberculosis compounds with better solubility and DMPK profiles.
Joshua Odingo, Director of Chemistry, TB Discovery Group, is leading this collaboration on behalf of IDRI along with Tanya Parish, Vice President Drug Discovery. While touring IDRI's impressive new site in Seattle, Roopa and Katy saw the fermentation, purification and chemistry suites and their robotics platform, which they utilize during their drug screening.

BVGH's Roopa (left) and Katy Graef (right) tour IDRI's new facility with IDRI's Joshua Odingo and Edison Zuniga (center).

New lab space at IDRI's Seattle location.

Jennifer Dent, Roopa Ramamoorthi, and Katy Graef from BVGH visited Seattle Biomed to discuss current research there and areas for potential collaborations. Discussions with Ken Stuart, President Emeritus and Founder of Seattle Biomed, included his interest in setting up a collaboration to create a T. cruzi and leishmania knockout system, similar to their T. brucei system.
Malcolm Gardner, Full Professor at Seattle Biomed, expressed his interest in accessing *P. vivax* patient samples, and David Sherman, Full Professor and Program Director at Seattle Biomed, discussed his research examining *M. tuberculosis* transcription factors. Following the meeting, Jennifer introduced David to AstraZeneca's tuberculosis group, initiating collaboration discussions.

Jennifer Dent and Katy Graef met with Wes Van Voorhis, Head of the Allergy and Infectious Diseases Division at the University of Washington (UW) and K. K. Ojo, UW Acting Assistant Professor, to get an update on their research programs and follow up on their malaria drug screening partnership with GSK.

Wes spoke about promising new research examining the effects of the groups’ bumped kinase inhibitor, 1294, and its efficacy on cryptosporidiosis in a mouse model in A. Clinton White’s lab, at the University of Texas Medical Branch. Cryptosporidium therapeutics became even more needed with the recent publication of the GEMS study showing cryptosporidium infection to be highly associated with toddlers who have diarrhea. Wes and K.K. are interested in exploring collaborations to further examine 1294 in cattle and other preclinical studies.

**Member Spotlight**

Sangeeta Bhatia, the John J. and Dorothy Wilson Professor of Health Sciences & Technology, Electrical Engineering & Computer Science and Investigator, How ard Hughes Medical Institute at the Massachusetts Institute of Technology was featured in the 1 May 2013 issue of The Scientist. The article highlights Sangeeta’s pioneering work with cutting-edge miniaturized cell culture for disease-based screening, including work with malaria. The full article can be viewed [here](#).

**WIPO Re:Search in the News**

On 17 May 2013, *Intellectual Property Watch* highlighted WIPO Re:Search and BVGH in an article featuring programs from WIPO intended to address global health and climate change. The coverage was related to a briefing delivered to WIPO’s Committee on Development and Intellectual Property (CDIP) in May.

The full article can be viewed [here](#).
Research Request
With colleagues at Seattle BioMed and Boston University, David Sherman has used high-throughput chromatin immunoprecipitation and sequencing (ChIP Seq) to characterize the binding of essentially all 207 transcription factors of *M. tuberculosis* to the MTB chromosome.

The team would like to collaborate with other researchers who are interested in applying these data to understand downstream pathways relevant to specific targets.

For more information on these data and/or to pursue a collaboration, please contact Roopa Ramamoorthi.

Highlighted Contributions
Expertise and Knowledge Sharing Related to Point of Care Diagnostics
Professor Axel Scherer leads a laboratory at Caltech that is primarily interested in the design, fabrication, and characterization of nanoscale photonic, magnetic, and fluidic devices and systems. His group has expertise in designing microfluidic systems and electronic and optical sensors for low-cost PCR devices for point of care diagnostics. This expertise is applicable to the development of diagnostics for neglected tropical diseases in the developing world.

References: WIPO Re:Search Database entry describing Prof. Scherer's laboratories research Link

Caltech News Article (2/25/2013) Disease Diagnosis at the Touch of a Button Link to article

For more information or to discuss potential collaborations around this technology, please contact Roopa Ramamoorthi.

Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-21 June</td>
<td>Seattle Parasitology Conference (hosted by Seattle BioMed)</td>
<td>Seattle, WA</td>
<td>Website</td>
</tr>
<tr>
<td>21-26 July</td>
<td>Gordon Conference: Tuberculosis Drug Development</td>
<td>Lucca (Barga), Italy</td>
<td>Website</td>
</tr>
<tr>
<td>4-9 August</td>
<td>Gordon Conference: Malaria -- Molecular and Cellular Biology</td>
<td>Lucca (Barga), Italy</td>
<td>Website</td>
</tr>
</tbody>
</table>

Are you attending a global health event?
Do you have a Research Request to highlight in the Snapshot?

We want to hear from you! Please send feedback and suggestions via email.
A Note from Jennifer

Dear WIPO Re:Search Members,

I hope everyone is enjoying the arrival of summer!

Visit the WIPO Re:Search website to view the partnerships that have been established between members to date. I’m pleased to share with you that we now have over 25 agreements in place between members, with many more in discussions. In this Snapshot, a recent agreement is highlighted between Sanofi and the Center for World Health & Medicine.

Several meetings this past month have presented opportunities for the BVGH team to meet one-on-one with members. This issue highlights a few of the meetings attended, including Seattle BioMed’s Parasitology Conference and the NIAID/NIH Dengue Vaccine Initiative. Konji Sebati, WIPO, traveled to Brazil and met with leaders at Fiocruz.

I’m extremely pleased to welcome our newest members, the University of Ibadan and 60 Degrees Pharmaceuticals, LLC to WIPO Re:Search.

Please forward this Snapshot to your colleagues and reach out to us with any partnering requests or ideas.

Sincerely,

Jennifer Dent
President, BVGH

Special Announcement

Don’t miss seeing Jennifer Dent’s and BVGH board member, Steven Burrill’s, CEO, Burrill & Company, interviews during the Washington Biotechnology & Biomedical Association (WBBA) 2013 Life Science Innovation Northwest meeting via their live stream. On July 10th and 11th, a number of influential life science professionals will discuss exciting aspects of
Cornerstones of Collaboration

Konji Sebati, Director, Department of Traditional Knowledge and Global Challenges, WIPO, met with Jorge Bermudez, Vice President of Production and Innovation, Fundacao Oswaldo Cruz (FIOCRUZ), at FIOCRUZ’s Innovation and Production Headquarters, in Rio de Janeiro, Brazil. Konji updated FIOCRUZ on WIPO Re:Search’s progress to date, and she and Jorge discussed scaling up FIOCRUZ’s involvement in the WIPO Re:Search consortium.

Jennifer was invited to attend the USA-India Chamber of Commerce (USAIC) Biopharma and Healthcare Summit in Boston, MA last month. During the event, she met with a number of WIPO Re:Search Members, including Manos Perros, Head of Infection iMed, AstraZeneca, Jeffrey Chodakewitz, Senior Vice President, Global Scientific Strategy, Franchise Head, Infectious Diseases, Merck, and Muthiah Manoharan, Senior Vice President, Drug Discovery, Alnylam. Jennifer also had the opportunity to present WIPO Re:Search to a number of potential new Members.
USAIC Infectious Diseases panel (from left to right): Moderator, Manos Perros, Head of Infection iMed & Site Head, Boston R&D, AstraZeneca, Brian Dannemann, Senior Director, Johnson & Johnson R&D, Jeffrey Chodakewitz, SVP and Franchise Head - Infectious Diseases, Merck & Co., G.N. Singh, Drug Controller General of India, Central Drug Control Organization, Mark Namchuk, SVP - Research, Vertex Pharmaceuticals, and Lynn Marks, SVP - Projects, Clinical Platforms & Sciences, GlaxoSmithKline

Katy Graef, BVGH, attended the 2013 Seattle Parasitology Conference held at Seattle BioMed, June 20th - 21st. During the event, she presented a poster describing WIPO Re:Search and the Partnership Hub activities of BVGH, and spoke with numerous researchers, including several from Seattle BioMed and the University of Washington. Conference sessions focused on gene expression, vaccine and drug development, and cell biology and chemistry of parasites such as Plasmodium, filarial nematodes, kinetoplastids, and Giardia.
Roopa Ramamoorth and Katy attended the 2013 Dengue Vaccine Initiative - Consultation on Dengue Vaccines conference held by the NIAID/NIH in Rockville, MD, June 26 - 28th. Session topics included lessons learned from vaccine developers and immune responses to vaccination and infection. The event culminated in a thoughtful discussion regarding the necessity, feasibility, and ethics of human challenge studies, the proper in vivo models of infection, and the need for consensus regarding whether focus should be on vaccines that protect against infection or disease. During the event, Roopa and Katy met with scientists from several Member organizations, including Nicholas Jackson, Associate Vice President, R&D, Sanofi Pasteur, Pei-Yong Shi, Executive Director/Senior Unit Head - Disease Biology, Novartis Institute for Tropical Diseases, and Stephen Thomas, Director, Viral Diseases Branch, Rafael De La Barrera, Section Head, Viral Vaccines and Assay Development, and W. W. Shanaka Rodrigo, Senior Research Scientist, Viral Diseases Branch, from Walter Reed Army Institute of Research. Roopa and Katy also spoke with Rafi Ahmed, Director, Emory Vaccine Center, and Jens Wrammert, Assistant Professor, Children’s Center for Immunology and Vaccines, from Emory University, and Navin Khanna, Group Leader, Mammalian Biology: Recombinant Gene Products, International Center for Genetic Engineering and Biotechnology (ICGEB). Discussions generated several collaboration ideas that BVGH will be following up to advance.

New Member Announcements

This month we are pleased to announce two new WIPO Re:Search Members - the University of Ibadan, Ibadan, Nigeria, and 60 Degrees Pharmaceuticals, LLC, Washington, DC.

Founded in 1948, the University of Ibadan is Nigeria’s oldest university. The University has a mission to “expand the frontiers of knowledge through provision of excellent conditions for learning and research”. There are nine departments, including Science and Technology, and a College of Medicine, which focuses on basic medical sciences, clinical sciences, dentistry, and public health. Many faculty members in its Pharmacy
department focus on drug discovery and development of local natural products. Professor Alexander Odaibo, Head of the Parasitology Research Unit, Department of Zoology, at the University of Ibadan stated, "our membership in the WIPO Re: Search Consortium will enhance our capacity to contribute to the control and prevention of neglected tropical diseases in Africa. We look forward to a fruitful collaboration". More information can be found on their website.

60 Degrees Pharmaceuticals, LLC (60P) was founded in 2010 with a mission to discover, develop, and distribute new medicines for NTDs, with the intent of alleviating the suffering and economic burden they cause. Geoff Dow, CEO, Principal, at 60P stated, "60 Degrees Pharmaceuticals is dedicated to the development of cost effective new medicines for neglected diseases. We look forward to leveraging the partnering support of BVGH and the WIPO Re:Search network to accelerate our development efforts". More information about 60P can be found on their website.

**Partnerhsip Hub Central**

Sanofi, Paris, France, and the Center for World Health & Medicine (CWHM), Saint Louis University, St. Louis, MO, signed an MTA that will allow researchers from CWHM to test Sanofi's neutral endopeptidase inhibitors for their use as anti-diarrheals in CWHM's rat diarrheal model. CWHM has been working with PATH Drug Solutions (formerly OneWorld Health) to evaluate NEP inhibitors for their potential as therapeutics for acute secretory diarrhea (ASD), a leading cause of death in children in the developing world. "Gaining access with the help of BVGH to Sanofi's neutral endopeptidase inhibitors to evaluate in our animal model will greatly accelerate our ability to evaluate high quality clinical compounds for their potential to treat ASD." - Marvin Meyers, Director of Medicinal Chemistry, CWHM.

Roopa and Katy visited the National Institutes of Health to discuss current research and potential for collaborations with several NIH scientists. Various BVGH initiatives were discussed with Lee Hall, Chief, Malaria Vaccine Development Section, Annie Mo, Program Officer, Preclinical Parasite Vaccine Development, John Rogers, Project Officer, Preclinical Parasite Drug Development, and John Pesce, Product Development Program Manager, from the Parasitology and International Programs Branch. Meetings also took place with Thomas Nutman, Head, Helminth Immunology Section and Clinical Parasitology Unit, to learn about his research projects examining helminth infections. David Sacks, Chief, Intracellular Parasite Biology Section spoke with Katy and Roopa about his research examining the immunology of leishmania. BVGH will follow-up on his interest in obtaining African leishmania samples. Lastly, Alan Sher, Chief, Laboratory of Parasitic Diseases, and Bruno Andrade, Visiting Fellow, Immunobiology Section, discussed their tuberculosis research, specifically Immune Reconstitution Inflammatory Syndrome (IRIS) in tuberculosis/HIV co-infections as well as their new projects examining the effects of diabetes on tuberculosis infection. These meetings presented a wealth of information and ideas for new collaborations.

**Highlighted Contributions**

Featured this month are two AstraZeneca clinical stage compounds, described in the WIPO Re:Search Database, that have potential to be repurposed for neglected diseases.

**ZD4054** is an endothelial A receptor antagonist that was originally evaluated in Phase II studies for prostate cancer. This class of compounds has also been shown to have efficacy in a mouse cerebral malaria model, preventing cerebral microvascular hemorrhage when co-administered with an artemisinin derivative.

AZD8055 is an orally bioavailable mTOR kinase inhibitor that went into Phase I clinical trials targeting tumors. TOR kinases are also expressed in T. brucei, the causative agent of Human African Trypanosomiasis, and are potential druggable candidates.


For more information or to discuss potential collaborations regarding this technology, please contact Roopa Ramamoorthi.

Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 21-26</td>
<td>Gordon Research Conference: Tuberculosis Drug Development</td>
<td>Lucca, Italy</td>
<td>Website</td>
</tr>
<tr>
<td>Aug. 4-9</td>
<td>Gordon Research Conference: Molecular and Cell Biology of Malaria</td>
<td>Lucca, Italy</td>
<td>Website</td>
</tr>
</tbody>
</table>

Are you attending a global health event? Do you have a Research Request to highlight in the Snapshot? We want to hear from you! Please send feedback and suggestions via email.
In This Issue

Cornerstones of Collaboration
Partnership Hub Central
Highlighted Contribution
WIPO Re:Search Member in the News
Upcoming Global Health Events

A Note from Jennifer

Dear WIPO Re:Search Members and Friends,

I am pleased to confirm the 2013 WIPO Re:Search Annual Meeting will be held in conjunction with the European & Developing Countries Clinical Trials Partnership (EDCTP) Seventh Forum on October 21st in Dakar, Senegal. WIPO evaluated options and obtained feedback from Members before confirming date and location of the meeting. We expect to have strong representation from Members at the annual meeting, which will focus on research organizations from African countries. As more details become available, WIPO and BVGH will share them with you.

Last month, I had the pleasure of moderating a panel session titled "1+1=3: The Power of Partnerships" at the Washington Biotechnology & Biomedical Association's 2013 Life Sciences Innovation Northwest conference in Seattle. WIPO Re:Search Members Michael Strange from GlaxoSmithKline and Anurag Mairal from PATH represented WIPO Re:Search on the panel. Read more about the conference and activities in this month's Snapshot.

Please forward this Snapshot to your colleagues and reach out to us with any partnering requests or ideas.

Sincerely,
Jennifer Dent
President, BVGH

Cornerstones of Collaboration

Jennifer Dent moderated a panel and was interviewed by Jack Farris, Past President and CEO, WBBA, at the Washington Biotechnology & Biomedical Association's 2013 Life Science Innovation Northwest conference in Seattle last month. You can view exclusive interviews of Jennifer discussing Biotechnology and Global Health and BVGH board member, Steven Burrill, CEO, Burrill & Company, presenting a
view on Growth in Biotechnology. The panel session, "1+1 = 3: The Power of Partnerships," moderated by Jennifer, included panelists Natalie Dakers, CEO, The Center for Drug Research and Development, Wenyong Wang, Managing Director, Burrill & Company, Ling Wong, Program Officer and Program Investment Officer, the Bill & Melinda Gates Foundation, Anurag Mairal, Global Program Leader, Technology Solutions Global Program, PATH, and Michael Strange, Head of Operations, Tres Cantos Medicines Development Campus, GlaxoSmithKline. While at the event, Jennifer had the opportunity to speak with numerous individuals from local, national, and international biotechnology organizations. Videos of Jennifer’s and Steven’s interviews can be found online. Recaps of the plenary and sessions can be found on the WBBA’s website.

Jennifer speaks during the panel session while Anurag Mairal (PATH) (right) listens in.

Jennifer and Katy Graef attended an Open House event at Seattle BioMed. During the event, which included a poster session and tours of Seattle BioMed's insectarium, Alan Aderem, President and Full Professor, Seattle BioMed, gave a brief outline of the institution's current research and its most recent successes. The event presented an opportunity to connect with several Seattle BioMed researchers including Kevin Urdahl, Assistant Professor, who studies the role of regulatory T cells (Tregs) during tuberculosis infection, and Joe Smith, Associate Professor, whose laboratory focuses on cytoadherence of Plasmodium falciparum-infected erythrocytes.

Roopa Ramamoorthi attended the Tech Transfer Summit North America 2013 conference, organized by TTS Ltd., at the UCSF Mission Bay campus in San Francisco. During the event, she met with several directors from WIPO Re:Search Founding Pharmaceutical Members to discuss WIPO Re:Search collaboration opportunities including Roxanne Duan, Director, Academic Partnering, MedImmune, AstraZeneca, Alex Szidon, Director, Operational Alliances, Novartis, and Sylvaine Cases, Director, External Innovation, Science Policy and External Innovation, Sanofi R&D Strategy, Sanofi. Roopa also met with and described WIPO Re:Search to potential new Members.

**Partnership Hub Central**

Founding member, AstraZeneca, and scientists at the Anti-Wolbachia Consortium (A-WOL) at the Liverpool School of Tropical Medicine (LSTM) in Liverpool, UK, finalized an agreement that will enable LSTM scientists to utilize AstraZeneca’s new High-Throughput Screen Center. The Center, which
has over 1.8 million compounds, will host LSTM scientists while they screen compounds against Wolbachia, an essential bacterium for the nematodes that cause onchocerciasis and lymphatic filariasis. More information regarding this new collaboration can be obtained at AstraZeneca's Lab Talk blog. See this month's highlighted contributions for more information about this high-throughput screen opportunity.

Highlighted Contribution

Featured this month is AstraZeneca's new High-Throughput Screen Center and their commitment to allow its use by WIPO Re:Search members for three screens each year. AstraZeneca will enable members to screen their full collection or large libraries to identify and determine potency of small molecule hits against novel targets for NTDs.

For more information or to discuss potential collaborations regarding this technology, please contact Roopa Ramamoorthi.

WIPO Re:Search Member in the News

The Massachusetts Institute of Technology (MIT) News published an article describing a novel method for growing liver tissue that supports infection with liver-stage malaria parasites developed by Sangeeta Bhatia, John J. and Dorothy Wilson Professor of Health Sciences and Technology & Electrical Engineering and Computer Science. This article follows the recent publication of Sangeeta's research in the July 17th issue of Cell Host & Microbe.

Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 8-12</td>
<td>Molecular Parasitology Meeting</td>
<td>Woods Hole, MA, USA</td>
<td>Website</td>
</tr>
<tr>
<td>Sept. 16-19</td>
<td>International Leprosy Congress</td>
<td>Brussels, Belgium</td>
<td>Website</td>
</tr>
</tbody>
</table>

Are you attending a global health event? Do you have a Research Request to highlight in the Snapshot? We want to hear from you! Please send feedback and suggestions via email.

WIPO Re:Search Founding Supporters

Copyright © 2012. All Rights Reserved.
In This Issue

Save the Date
Cornerstones of Collaboration
New Member Announcement
Partnership Hub Central
Highlighted Contribution
WIPO Re:Search in the News
Upcoming Global Health Events

A Note from Jennifer

Dear WIPO Re:Search Members and Friends,

I am pleased to announce that BVGH will be hosting the second annual WIPO Re:Search Member Workshop on November 13, 2013, which is timed to coincide with the 2013 American Society of Tropical Medicine and Hygiene Annual Meeting in Washington, DC. Similar to last year’s event, the 2013 Workshop will feature breakout sessions that will provide attendees with the opportunity to discuss specific global health research topics. We have obtained feedback from several Members to help us design interesting and relevant session topics. Please see our special “Save the Date” Snapshot section for more information.

Last month, several scientists from African research institutions began their three month- to year-long visits at participating international WIPO Re:Search Member institutions. This month's Snapshot features three of these hosting opportunities - Christian Agyare from Kumasi, Ghana will spend ten months at the University of California, San Francisco, and Wellington Oyibo, from Lagos, Nigeria, and Fidelis Cho-Ngw a from Buea, Cameroon, will each spend three months at Novartis’ facilities in Basel, Switzerland.

I’m extremely pleased to welcome our newest member, Tulane University, to WIPO Re:Search.

Read more about these and other topics in this month’s Snapshot.

As always, please forward this Snapshot to your colleagues and reach out to us with any partnering requests or ideas.

Sincerely,

Jennifer Dent
President, BVGH

Stay Connected

Like us on Facebook
Follow us on twitter
View our profile on LinkedIn

BVGH Website
WIPO Re:Search Database

Save the Date - 2013 WIPO Re:Search Member Workshop

https://ui.constantcontact.com/visualeditor/visual_editor_preview.jsp?agent.uid=1114430933437&format=html&print=true
Cornerstones of Collaboration

Roopa Ramamoorthi met with Jair Lage de Siqueira Neto, Kinetoplastida Core Director, during a visit to the Center for Discovery and Innovation in Parasitic Diseases (CDIPD), directed by Jim McKerrow at the University of California, San Francisco (UCSF). Jair showed Roopa the Small Molecule Discovery Center's (SMDC) automated platform, which has been used to run assays co-developed with Steven Chen, High-throughput Screening Specialist, and Michelle Arkin, Associate Director, SMDC. Jair mentioned that the automated platform is "equipped with robotic arms, liquid handlers and a microscope and allows for the high-content screening of 15,000 compounds per week". The robotic station is being used to screen compounds for hits against Chagas disease, leishmaniasis, and human African trypanosomiasis, among others.

Jair Lage de Siqueira Neto sits in front of the Biomek FX robotic station at the Center for Discovery and Innovation in Parasitic Diseases, UCSF

Roopa and Katy Graef met with Tanya Parish, Vice President, Drug Discovery, and Joshua Odingo, Director, Chemistry, at the Infectious Disease Research Institute (IDRI), to discuss IDRI's nascent collaboration with the National Institutes of Health (NIH). IDRI and the NIH signed an MTA that will allow IDRI to gain access to approximately 5,000 natural products for a pilot study screen against Mycobacterium tuberculosis.
Jennifer Dent presented WIPO Re:Search as the keynote speaker at the 2013 Technology Transfer Summit (TTS) Australia meeting held at the Walter + Eliza Hall Institute of Medical Research in Melbourne, Australia. While in Australia, Jennifer met with and discussed WIPO Re:Search with several academic leaders who expressed interest in joining the Consortium.
New Member Announcement

This month we are pleased to announce that Tulane University has joined the WIPO Re:Search consortium.

Founded in 1834, Tulane University is a highly regarded and selective independent research university, located in New Orleans, Louisiana. Tulane's Department of Tropical Medicine within the School of Public Health & Tropical Medicine has a long history of contributions to the parasitology and tropical medicine fields and is one of the oldest tropical medicine departments in the world. Faculty members in its Department of Tropical Medicine focus on various aspects of malaria, including vector-parasite interactions and genetics of malaria drug resistance. John Christie, Executive Director of the Office of Technology Transfer and Intellectual Property Development at Tulane University stated, "we are excited about the new opportunities for collaborations that the WIPO Re:Search consortium can offer us and are looking forward to actively participating in this global health endeavor." More information can be found on Tulane University's website.

Partnership Hub Central

With the financial support from the Australian government, BVGH worked with WIPO to arrange research sabbaticals for scientists from African research institutions. This past summer, several of these hosting opportunities successfully began.

In August, Christian Agyare, Senior Lecturer, Faculty of Pharmacy & Pharmaceutical Sciences, Kwame Nkrumah
**University of Science and Technology**, Kumasi, Ghana, began his research visit at the University of California, San Francisco (UCSF), hosted by Conor Caffrey, Center for Discovery and Innovation in Parasitic Diseases (CDIPD). Christian will spend ten months working with Conor's group. During this time, he will participate in drug discovery screens of small molecules and natural products, as well as gain experience in animal models for a number of parasitic infections. Christian hopes to "get new experiences, and if possible, transfer some of that experience back home." Conor agreed with Christian, stating, "bearing in mind the resource constraints at Christian's institute in Kumasi, it would be possible for Christian to maintain *C. elegans* as a model system for nematode worms. *C. elegans* is easy to maintain on agar plates. Schistosomes and African trypanosomes, with some training, are also relatively easy to maintain, but only if BSL2 facilities can be arranged."

Christian brought with him several natural products originating from Ghanaian medicinal plants with which he hopes to "have some interesting research findings against the organisms here at the CDIPD, including *Brugia*, *C. elegans*, schistosomes, and trypanosomes."

[Image of Conor Caffrey and Christian Agyare at the CDIPD, UCSF]

In August, Wellington Oyibo, Associate Professor, College of Medicine, **University of Lagos**, Nigeria, and Fidelis Cho-Ngw a, Associate Professor of Biochemistry, **University of Buea**, Cameroon, travelled to Basel, Switzerland where they will spend three months at **Novartis**' headquarters.

[Image of Novartis]

Wellington will gain exposure to Novartis' processes in innovation and industry dynamics, governance of R&D innovation, development policy, and knowledge management. Wellington noted that, "my sabbatical in Novartis offers yet another catalyst for my career as I see myself in another microcosm of knowledge and robust technology that I ever imagined. There is really so much to be gained for this academy-industry collaboration."
Fidelis will gain broad experience in drug discovery and development from a pharmaceutical industry perspective. Fidelis stated that, "we are happy; extremely happy with WIPO Re:Search because the initiative is creating the right kind of serious partnerships that will help in getting badly needed healthcare products for the neglected tropical diseases more rapidly, or in getting candidates to a point where the interests of the big pharmaceutical companies for take-over can be aroused."

In WIPO Re:Search Member funding news, the National Institute of Allergy and Infectious Diseases of the National Institutes of Health (NIH) recently awarded support to Conor Caffrey, UCSF, who is collaborating with Merck, to investigate statins as drugs to treat schistosomiasis.

**Highlighted Contribution**

Featured this month are two contributions submitted by the Theodor Bilharz Research Institute (TBRI) to the WIPO Re:Search Database.

**Availability of schistosome biological material**

The schistosome biological supply center at TBRI has made a wide range of schistosome biological material (alive, fresh, frozen, and as antigens) available to researchers for testing anti-schistosomal compounds. The center has supplied the biological material to TBRI researchers and to more than 20 international research institutes.

**Expertise in drug discovery and evaluation of anti-schistosomal compounds/drugs**

Professor Sanaa Botros' laboratory has the ability to screen anti-schistosomal compounds using an in vitro schistosome worm killing assay and in vivo using a *Schistosoma mansoni* infected animal model. Professor Botros' laboratory is also able to conduct efficacy, resistance, and bioavailability testing on anti-schistosomal drugs, as well as drug evaluation involving different parasitological, immunological, and histopathological parameters.

For more information or to discuss potential collaborations regarding this technology, please contact Roopa Ramamoorthi.

**WIPO Re:Search in the News**

Check out BVGH's latest publication in the September 2013 issue of the Pharmaceutical Patent Analyst journal. The article, co-authored with Johannes Wichard, Deputy Director General, Global Issues Sector, World Intellectual Property Organization (WIPO), summarizes the history of WIPO and the WIPO Re:Search consortium, and highlights a few of the partnerships and agreements that WIPO Re:Search’s eight founding pharmaceutical members have engaged in since the Consortium’s establishment.

**Upcoming Global Health Events**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 16-19</td>
<td>International Leprosy Congress</td>
<td>Brussels, Belgium</td>
<td>Website</td>
</tr>
<tr>
<td>Oct. 6-11</td>
<td>6th MIM Pan-African Malaria Conference</td>
<td>Durban, South Africa</td>
<td>Website</td>
</tr>
</tbody>
</table>
Are you attending a global health event?
Do you have a Research Request to highlight in the Snapshot?

We want to hear from you! Please send feedback and suggestions via email.

WIPO Re:Search Founding Supporters

Copyright © 2012. All Rights Reserved.

Forward this email

This email was sent to jdent@bvgh.org by jdent@bvgh.org | Update Profile/Email Address | Instant removal with SafeUnsubscribe™ | Privacy Policy.

BIO Ventures for Global Health | 401 Terry Avenue North | Seattle | WA | 98109
A Note from Jennifer

Dear WIPO Re:Search Members and Friends,

With the change of the season, BVGH is changing, too. I am pleased to announce that Linda Venczel has joined our team. Linda brings with her a breadth of experience working on global health issues at several leading organizations including PAHO, the Centers for Disease Control and Prevention, and most recently, the Bill & Melinda Gates Foundation. Please join me in welcoming Linda to our team!

I am proud to be a representative and member of the Access to Medicine Index’s Technical Sub Committee for the 2013-2014 report. The Index was reviewed in an article published in The New England Journal of Medicine. See the publication below.

I am very pleased to welcome four new Members to WIPO Re:Search: Institut Pasteur Korea; Institut Pasteur de Tunis; University of Mauritius; and University of Vermont.

As a reminder, the 2013 WIPO Re:Search Annual Meeting will be held on October 21st in Dakar, Senegal. For more information about the event or to RSVP, email Cecilia Mann at WIPO before October 10th.

Don’t forget to join the 2013 WIPO Re:Search Member Workshop at ASTMH on November 13th! Contact Katy Graef for information or to RSVP.

Please forward the Snapshot to your colleagues and reach out to us with any partnering requests or ideas!

Sincerely,
Jennifer Dent
President, BVGH
When: October 21, 2013, 9am - 4pm  
Where: **King Fahd Palace Hotel**, Dakar, Senegal

The Annual Meeting is for WIPO Re:Search Members and will take place immediately prior to the Seventh EDCTP Forum.

---

**Save the Date - 2013 WIPO Re:Search Member Workshop**

*When: November 13, 2013 11am - 4pm  
Where: **Hotel Palomar**, Washington DC - 2121 P Street, NW  
How: If you would like to attend, please email [Katy Graef](mailto:katy.grae@wipo.int)  
Transportation: Hotel Palomar is located less than 2 miles from the location of the ASTMH meeting ([Marriott Wardman Hotel](https://Marriott-Wardman%20Park))*. Both hotels are located within walking distance of the Washington DC subway Red Line.

---

**Cornerstones of Collaboration**

This year Jennifer Dent has been a representative and member of the Access to Medicine Index’s Technical Sub Committee, responsible for developing the 2013 - 2014 report. Seven of the WIPO Re:Search founding pharmaceutical members are represented in the Index.

Last month, Hans V. Hogerzeil, Professor of Global Health, University of Groningen, published an article in *The New England Journal of Medicine* describing the Index and its positive influence on industry’s commitment to improving access to medicines in the developing world. Hans concluded that, "...improving access to essential medicines for the poor in developing and emerging countries is no longer seen as ad hoc company philanthropy but rather as another sustainable way to do profitable business - by serving the long-term needs of 2 billion new customers..." Click [here](https://) to read the full article.

This past September, Roopa Ramamoorthi traveled to Palo Alto to present WIPO Re:Search to members of Stanford University’s SPARK program. Stanford created the SPARK program to provide its researchers with a way to overcome the obstacles associated with transitioning basic biomedical R&D to the bedside.

Two new collaborations were finalized last month. GSK agreed to supply Pushkar Sharma, Staff Scientist, National Institute of Immunology in New Delhi, India, with a set of kinase inhibitors. Pushkar will use these inhibitors to study the function of certain kinases in malaria.

The Eskitis Institute in Queensland, Australia, will share samples from its natural products library with AstraZeneca. Scientists at AstraZeneca’s Bangalore, India site will screen the extracts against *M. tuberculosis* in a whole cell assay.

---

**New Member Announcement**

This month we are pleased to announce that the Institut Pasteur Korea, Institut Pasteur de Tunis, University of Mauritius, and University of Vermont have joined WIPO Re:Search.

Located in Seongnam, South Korea, the **Institut Pasteur Korea** is a world-class translational research institute, renown as a center of excellence in biomedical research and technology development. The Institut has five program centers, in...
Early Discovery Program, which focuses on streamlining drug discovery, the Late Discovery Program, which focuses on turning hit compounds into advanced leads, and the Center for Neglected Diseases, which focuses on malaria, leishmaniasis, Chagas disease, and dengue.

Founded in 1893, Institut Pasteur de Tunis (IPT) is the most important health research institute in Tunisia, which celebrates its 120th anniversary this year. Its three missions are research and training, diagnosis and public health activities, and vaccine and serum manufacturing. In response to the socio-economic challenges, IPT with the support of its knowledge transfer office, is working to assist knowledge, scientific, and technological transfer to promote public-private partnership in biotechnology applied to health, especially in neglected diseases. "It's a pleasure to become a member of the WIPO Re:Search consortium as provider and user. We look forward to have enriching exchanges with members of the network and to have new partnership opportunities on neglected diseases projects," said Hechmi Louzir, President, Institut Pasteur de Tunis.

The University of Mauritius, located in Réduit, in western Mauritius, was founded in 1965. Research at the University of Mauritius is a blend of fundamental and applied sciences, including the pharmacology of marine organisms, polymer therapeutics and drug delivery, and molecular parasitology.

The University of Vermont's College of Medicine boasts Departments of Microbiology and Molecular Genetics, Pharmacology, and Biochemistry, among others. The College of Medicine is also home to the Vaccine Testing Center, which focuses on vaccine development and understanding the immunology of infectious diseases of global consequence.

**Partnership Hub Central**

With the financial support of the Australian government, BVGH worked with WIPO to arrange sabbaticals at WIPO Re:Search member institutions for several African researchers.

This October, both Wellington Oyibo, Associate Professor, College of Medicine, University of Lagos, Nigeria, and Fidelis Cho-Ngwa, Associate Professor of Biochemistry, University of Buea, Cameroon, entered the final month of their stay at Novartis' headquarters in Basel, Switzerland.

Wellington noted that the sabbatical was "a life-improving experience for my research and teaching; my expectations at the end of this sabbatical are high."
In June, Olfat Hammam, Professor of Pathology, Theodor Bilharz Research Institute, Egypt, began her one-year sabbatical at Stanford University in the laboratory of Michael Hsieh, Assistant Professor of Urology. During her sabbatical, Olfat will be working on a research project focusing on schistosomal bladder carcinogenesis and fibrosis. Olfat noted that, "I have benefited from my interactions, seeing how researchers at Stanford think and sharing ideas. I have experience in pathology and many techniques, but I like to see how techniques are performed here so that I can learn something." Olfat hopes that her collaboration with Michael will continue after she returns to Egypt.
Last month, Roopa traveled to Stanford to meet with several researchers, including Shirit Einav, Assistant Professor, Microbiology & Immunology, Medicine - Infectious Diseases. Shirit discussed her projects repurposing drugs as possible dengue treatments. Roopa also had the opportunity to hear Olfat Hammam present her schistosomiasis research during Michael Hsieh's
Roopa also heard Christian Agyare, Senior Lecturer, Faculty of Pharmacy & Pharmaceutical Sciences, **Kwame Nkrumah University of Science and Technology**, Ghana, speak about his drug discovery utilizing natural products for wound healing and to treat NTDs. Christian is currently being hosted by Conor Caffrey, Associate Researcher, Center for Discovery and Innovation in Parasitic Diseases, **UCSF**, during his sabbatical arranged by BVGH and WIPO.

**Highlighted Contributions**

Featured this month are two contributions submitted by the African Institute of Biomedical Science and Technology (AiBST) to the **WIPO Re:Search Database**.

**Access to DMPK platform**

AiBST is an African Network for Drugs and Diagnostics Innovation (ANDI) Center of Excellence in DMPK and toxicology and can provide researchers with access to its DMPK platform to evaluate new chemical entities for safety and efficacy.

**Biobank with African DNA samples**
AiBST has a Biobank with DNA samples from populations from across Africa. They are willing to entertain collaborations with WIPO Re:Search members undertaking biomarker research for safety and efficacy of medicines in various African populations.

For more information or to discuss potential collaborations regarding this technology, please contact Roopa Ramamoorthi.

**WIPO Re:Search in the News**

BVGH issued a press release last month announcing the 30th WIPO Re:Search collaboration. The release, which described several WIPO Re:Search collaborations, was followed up with an article by Seattle’s KOMO News focusing on Seattle-based WIPO Re:Search collaborations. Click here to read the article and interviews with Ken Stuart, Founder and Professor, Seattle BioMed, and Wesley Van Voorhis, Professor and Head, Division of Allergy and Infectious Diseases, University of Washington.

**Upcoming Global Health Events**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 21-24</td>
<td>Seventh EDCTP Forum</td>
<td>Dakar, Senegal</td>
<td>Website</td>
</tr>
<tr>
<td>Nov. 1-7</td>
<td>ASTMH 62nd Annual Meeting</td>
<td>Washington, DC</td>
<td>Website</td>
</tr>
</tbody>
</table>

**Are you attending a global health event?**

**Do you have a Research Request to highlight in the Snapshot?**

*We want to hear from you! Please send feedback and suggestions via email.*

**WIPO Re:Search Founding Supporters**

---

Copyright © 2012. All Rights Reserved.

Forward this email

This email was sent to jdent@bvgh.org by jdent@bvgh.org |
November 2013

In This Issue

Special Reminder - Annual Workshop
Special Announcement
Cornerstones of Collaboration
New Members Announcement
Partnership Hub Central
Highlighted Contributions
Upcoming Global Health Events

A Note from Jennifer

Dear WIPO Re:Search Members and Friends,

This past month, all of us at BVGH have been busy preparing for the 2nd Annual WIPO Re:Search Workshop, which will be held immediately prior to this year’s ASTMH Annual Meeting. We are delighted that a number of individuals from Member and perspective Member institutions will be attending. For any of you attending the ASTMH Annual Meeting but unable to attend our Workshop, be sure to stop by our poster to meet Roopa and Katy.

I’m pleased to share with you that we now have 44 agreements in place between Members. Our three newest agreements are highlighted in this issue of the Snapshot.

Last week I had the opportunity to present at the 2013 Milken Institute Partnering for Cures conference in New York. It was a great opportunity to publicize WIPO Re:Search, as well as meet with Members and other global health innovators.

I am extremely pleased to welcome our two newest Members, the Nigerian Institute of Medical Research and the University of British Columbia to WIPO Re:Search.

As always, please forward this Snapshot to your colleagues and reach out to us with any partnering requests or ideas.

Sincerely,

Jennifer Dent
President, BVGH

Stay Connected

BVGH Website
WIPO Re:Search Database

Special Reminder - 2013 WIPO Re:Search Member Workshop

This Wednesday, November 13th, BVGH will be hosting the 2nd Annual WIPO Re:Search Member Workshop in Washington, DC. This event, which will be held immediately prior to the beginning of the 2013 ASTMH Annual Meeting, will feature a roundtable discussion about WIPO Re:Search “Best Practices” and two parallel breakout sessions to discuss and share experiences of
Animal Models for NTDs and Obtaining Funding. Please email Katy for more information.

If you happen to be in Washington DC on November 13th, please feel free to join!

**What:** 2nd Annual WIPO Re:Search Member Workshop  
**When:** Wednesday, November 13, 2013, 11am - 4pm  
**Where:** Palomar Hotel, 2121 P Street, NW, Phillips Room  
**Transportation:** Hotel Palomar is located less than 2 miles from the location of the ASTMH meeting (Marriott Wardman Park Hotel). Both hotels are located within walking distance of the Washington DC Metro subway Red Line.

If you are unable to attend the Workshop, but will be at the ASTMH meeting, Katy Graef and Roopa Ramamoorthi will be presenting a poster entitled, "Advancing Neglected Tropical Disease Research Through Global Industry/Nonprofit Collaborations" during Poster Session A. Please stop by!

**What:** WIPO Re:Search poster (Poster #: LB-2019)  
**When:** Poster Session A, Thursday, November 14, 2013, 12pm - 1:45pm  
**Where:** ASTMH Annual Meeting, Marriott Wardman Park Hotel, 2660 Woodley Road, NW, Exhibit Hall B/C

**Special Announcement**


**Cornerstones of Collaboration**

Three new collaborations were finalized last month. **GlaxoSmithKline (GSK)** agreed to provide Vinay Nandicoori, Scientist, **National Institute of Immunology** in New Delhi, India, with a set of kinase inhibitors. Vinay will use these inhibitors to study tuberculosis metabolic pathways.

GSK also signed two agreements to provide Conor Caffrey, Schistosomiasis and Hookworm Core Director, Center for Discovery and Innovation in Parasitic Diseases, at the **University of California, San Francisco**, with kinase inhibitor sets to screen against schistosomes.

Manu Prakash, Assistant Professor of Bioengineering, **Stanford University**, visited Wellington Oyibo, Associate Professor, College of Medicine, at the **University of Lagos** in Nigeria to field test his paper microscope. While at the University of Lagos, Manu and his graduate student attended a one-day microscopy training course in order to learn about the challenges and needs of performing field diagnoses.

**New Members Announcement**

This month we are pleased to announce that the **Nigerian Institute of Medical Research (NIMR)** and the **University of British Columbia (UBC)** have joined WIPO Re:Search.

NIMR, located in Yaba, Nigeria, is the oldest organization for health research in Nigeria. Established in 1977 by the Nigerian Federal Government to conduct public health research, NIMR has five research divisions that focus on malaria, HIV/AIDS, tuberculosis, NTDs, vaccinology, and immunology, among others.

"Many times the Nigerian Institute of Medical Research (NIMR) does not have enough funds to invest in cutting-edge research due to high cost and/or lack of knowledge resources. Therefore, becoming a member of the WIPO Re:Search consortium will enable NIMR to network with advanced member organizations around the world and actively participate in state-of-the-art research to bring solutions to some of the most crucial public health issues."
health challenges facing Nigeria,” - Olaoluw a Phebian Akinw ale, Director of Research, Neglected Tropical Diseases, NIMR

Established in 1908, the University of British Columbia is one of Canada’s leading research universities. Research groups in its Faculties of Science and Medicine focus on various infectious diseases, including HIV/AIDS, *M. tuberculosis*, and *Leishmania*, as well as the development of antimicrobials.

**Partnership Hub Central**

Last week, Jennifer Dent gave a presentation describing WIPO Re:Search at the 2013 Partnering for Cures conference, hosted by the Faster Cures Center of the Milken Institute. During the meeting, Jennifer met with BVGH board member, Jim Greenwood, CEO and President of the Biotechnology Industry Organization, as well as Members, Sharon Reiche, Corporate Counsel, Pfizer, and Mike Strange, Head of Operations, Tres Cantos Medicines Development Campus, GSK.
Tom Bombelles, Head, Global Health, **WIPO**, participated in the EDCTP High-level meeting in Dakar on October 21st, during which he shared WIPO Re:Search accomplishments with key stakeholders, including the EU Director General for Research and Development.
Innovation. Tom recruited potential new Members from among the many developing country scientists in attendance, such as the Medical School, University of Health Sciences, Gabon, and the Institut Pasteur de Dakar. Both institutions are deeply engaged in NTD, malaria, and tuberculosis research, and expressed strong interest in WIPO Re:Search.

Tom also took the opportunity of being in Senegal to meet with 14 different media organizations representing, TV, radio, and print to raise general awareness of WIPO Re:Search, among specialized audiences and the general public. One of the interviews, with SudFM, which has a national audience, was captured during its prime time public affairs program.

Highlighted Contributions

Featured this month are two contributions submitted by Aberystwyth University to the WIPO Re:Search Database.

**Expertise in schistosome developmental biology (ID: 2641)**
Professor Karl Hoffmann's laboratory has the infrastructure to perform high-throughput, high content, whole organism screening assays for schistosomes and liver flukes, as well as to perform vaccine/drug experiments in murine models of schistosomiasis.

**Access to facilities for immunoprophylactic and chemotherapeutic studies of murine schistosomiasis (ID: 2642)**
Professor Karl Hoffmann's laboratory has a well-supported infrastructure in next generation sequencing, high performance computing, phenomics, biosafety level 2 laboratories for parasitological work (helminths), and small animal husbandry.

For more information or to discuss potential collaborations regarding this technology, please contact Roopa Ramamoorthi.

Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 13-17</td>
<td>62nd ASTMH Annual Meeting</td>
<td>Washington, DC</td>
<td><a href="#">Website</a></td>
</tr>
<tr>
<td>Dec. 8-11</td>
<td>5th Annual mHealth Summit</td>
<td>Washington, DC</td>
<td><a href="#">Website</a></td>
</tr>
</tbody>
</table>

Are you attending a global health event? Do you have a Research Request to highlight in the Snapshot? We want to hear from you! Please send feedback and suggestions via email.

WIPO Re:Search Founding Supporters

*known as Merck in the US and Canada*
A Note from Jennifer

Dear WIPO Re:Search Members and Friends,

November was a busy month for all of us at BVGH. We hosted the 2nd annual WIPO Re:Search Workshop in Washington, DC, which was attended by several familiar members as well as a few new faces. The event provoked a stimulating discussion about partnering best practices, which BVGH will utilize to create even more robust WIPO Re:Search collaborations.

Roopa and Katy attended the 2013 ASTMH Annual Meeting and I traveled to Durbin, South Africa to participate in a conference focused on IP in developing countries. Both events offered us opportunities to discuss collaborations and introduce attendees to WIPO Re:Search.

I am extremely pleased to welcome our two newest Members, Murdoch Childrens Research Institute and the University of South Florida. Since WIPO Re:Search was established in October 2011, membership has expanded from 31 Members to 80. We will continue to engage institutions that have the capacity to perform neglected tropical disease, malaria, or tuberculosis R&D.

As 2013 draws to a close, all of us at BVGH and WIPO Re:Search wish you a very happy holiday season and new year!

As always, please forward this Snapshot to your colleagues and reach out to us with any partnering requests or ideas.

Sincerely,
Jennifer Dent
President, BVGH

Cornerstones of Collaboration

Jennifer Dent, Roopa Ramamoorthi, and Katy Graef attended the 2013 American Society of Tropical Medicine and Hygiene (ASTMH)
Annual Meeting in Washington, DC last month. The meeting presented an opportunity to discuss research and collaboration opportunities with several members, including Ken Stuart, Founder and Professor, Seattle BioMed, Jose Maria (Pepe) Fiandor-Roman, Vice President and Head, Kinetoplastid Research, GlaxoSmithKline, Pradip Rathod, Director, NIH South Asia ICEMR, and Ted Nash, Chief, Gastrointestinal Parasites Section, NIH. Roopa and Katy presented a poster at the conference describing WIPO Re:Search collaborations formed in 2013.

After the ASTMH meeting, Jennifer traveled to Durbin, South Africa to attend the Creating and Leveraging Intellectual Property in Developing Countries conference. Jennifer participated in two panels, "Recent Global Patent Cases and their Implications" and "Research in Neglected Tropical Diseases and Leveraging the Value from Charitable IP Pools". WIPO Re:Search as a model to facilitate IP sharing was presented and discussed during both sessions by panelists, Dennis Liotta, Samuel Candler Dobbs Professor, Department of Chemistry, Emory University, and Ellis Owusu-Dabo, Scientific Director, Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR).
New Members Announcement

This month we are pleased to announce that Murdoch Childrens Research Institute and the University of South Florida (USF) have joined WIPO Re:Search.

Situated adjacent to the University of Melbourne in Parkville, Australia, the Murdoch Childrens Research Institute is dedicated to identifying ways to prevent and treat childhood diseases. Research projects within the Institute’s Infection & Immunity Group include tuberculosis in children, BCG immunization and the immune response, viral diarrhea, mucosal immunology, and vaccine and immunization research.

The University of South Florida is a high impact, global research university located in Tampa Bay, Florida. Faculty members in its Department of Global Health specialize in vector biology and ecology, vector-borne and water-borne diseases, vaccinology, parasitology, and drug discovery and development, among many others.

Partnership Hub Central - Special Edition: 2013 WIPO Re:Search Workshop

Last month, BVGH held the 2nd annual WIPO Re:Search Workshop in Washington, DC. Individuals from member and non-member...
institutions participated in the half-day event. The Workshop featured a roundtable session to discuss partnering best practices, followed by breakout sessions focused on animal models and obtaining funding.

Jackie Fine, Director, Outlicensing and Global Health Strategic Partnerships, MSD, and Sharon Reiche, Corporate Council, IP Policy, Legal Division, Pfizer, co-chaired the WIPO Re:Search Best Practices roundtable discussion. The session identified successful strategies and the potential challenges of engaging in collaborative research.

**Challenges:**

- Matching expectations between all collaborators, i.e. what work should be done, how long it should take, who is responsible for each part
- Time to finalize an agreement may be lengthy. Participants suggested that standardized language or clauses may be beneficial to accelerate WIPO Re:Search agreements
- Pharmaceutical companies’ legal departments are not involved in the project discussions - this can lengthen the process of finalizing an agreement. Attendees suggested better internal communication or to more directly involve the legal departments in project discussions and planning
- Not knowing what company assets are available to researchers. The participants received a brief tutorial on the use of the WIPO Re:Search database. This database offers users a searchable database of Provider contributions

**Successful strategies and benefits of WIPO Re:Search:**

- Identify and maintain a common goal - participants noted that the best way to keep collaborations moving was to keep all parties focused on the common goal of the project
- Having the right contacts - maintaining contacts who can drive an asset request forward. Contacts at pharmaceutical companies leave, but WIPO Re:Search maintains a line of communication to the individual(s) at the company who is best able to move a request forward
- If a project stalls, BVGH can identify a new Member that is capable of moving the project forward
- A letter of support from a pharmaceutical company Provider Member can strengthen a grant application

**Other key take-away messages:**

- Pharmaceutical companies see WIPO Re:Search as a way to further their commitment to health by supporting a field that they may not have active R&D in
- Companies are interested in seeing what potential secondary indications a compound could have
- Partnerships are critical - no single group can do it all. Collaborations provide a faster way to obtain new data versus waiting for a paper to be published
Breakout session: Animal Models:

- Mice with the same genetic background can provide different answers to the same question. Providers and how the animals are housed can alter experimental outcomes
- DNDI provides guidelines for animal models of *T. brucei* and *Leishmania* infection
- Animal models that provide human correlates for PK/PD data are needed
- Animal models that require a humanized response are not perfect for *in vivo* experiments that require an immune response (e.g. for vaccine development)
- Good animal models for soil-transmitted helminths are needed
- A central resource that displays which institution has what animal model would be well received

Breakout session: Obtaining Funding:

- Researchers are not obtaining funding for numerous reasons including: not enough funding/grant opportunities to choose from, grant opportunities do not fit research project, reviewers do not select project
- The NIH is becoming more focused on product development
- Diversification of financial support - funders are interested in seeing another organization provide matching funds, i.e. two funders will provide ½ of the costs of a project
- In addition to the more highly publicized funding opportunities, participants noted that university alumni associations are a good source of funding
Clinical trials facilities for parasitic diseases (ID:2683)
The University of Bamako is willing to enter into partnerships with organizations looking to make use of its five sites for clinical trials, which are certified by the Clinical and Laboratory Standards Institute. Its facilities are certified for hematology and biochemistry, and specialize in malaria drugs and vaccines. The university also has experience with other parasitic diseases including schistosomiasis, onchocerciasis, and leishmaniasis.

The University of Bamako can provide staff for volunteer recruitment, monitoring, clinical care for volunteers, and the possibility for interaction with the community.

For more information or to discuss potential collaborations regarding this technology, please contact Roopa Ramamoorthi.

WIPO Re:Search Members in the News

END7, a campaign of the Global Network for Neglected Tropical Diseases and the Sabin Vaccine Institute, launched a video
campaign aimed to capture the heavy burdens of NTDs. The most recent video, Three Generations, One Hope for Health: A Story from Kenya, can be found here.

WIPO Re:Search’s recent publication in the Pharmaceutical Patent Analyst can now be found on PubMed. WIPO purchased ePrint publications of the article, which are still available here.

Upcoming Global Health Events

<table>
<thead>
<tr>
<th>Dates</th>
<th>Event Title</th>
<th>Location</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 24-25</td>
<td>International Conference on Tuberculosis Therapy</td>
<td>Bangkok, Thailand</td>
<td>Website</td>
</tr>
</tbody>
</table>

Are you attending a global health event? Do you have a Research Request to highlight in the Snapshot? We want to hear from you! Please send feedback and suggestions via email.

WIPO Re:Search Founding Supporters

*known as Merck in the US and Canada

Copyright © 2012. All Rights Reserved.